40 WAY RIBBON CABLE

PIGGY BACK BOARD

IC1 8031

IC101 74LS 244

IC2 74LS 373

IC3 27256

IC4 GR281

IC102 74LS 245

IC103 74LS 244

IC104 74LS 244

IC105 74LS00

IC106 74LS 138

IC5 74LS138

IC6 74LS 374

IC7 74LS 373

IC19 74LS 374

ADDRESS 0-7

ADDRESS 8-15

DATA

CONTROL

SELECT

RESET

RS R/W IMB IMBAL

UP

FRONT

DISPLAY MODULE

RIBBON SCHEMATIC

DISPLAY

UNUSED ELEMENTS

LID LATCH ASSEMBLY

SW1-3

J20

J21

J4 (14W)

MOTHERBOARD

40 WAY RIBBON CABLE

PIGGY BACK BOARD

KEY MEMBRANE

J2(8W)

J20

J3(9W)

J21

DATA

CONTROL

SELECT

ADDRESS

RESET

RS R/W IMB IMBAL

ADDRESS 0-7

ADDRESS 8-15

IC1 8031

IC2 74LS 373

IC3 27256

IC101 74LS 244

IC103 74LS 244

IC106 74 LS 138

IC5 74LS138

IC6 74LS 374

IC7 74LS 373

74 LS05

74 LS08

74LS00

IC 105 74LS00

IC 4 GR28

R27 2K2

R93 2K2

R94 2K2

R95 2K2

R96 2K2

R92 2K2

R97 2K2

R99 2K2

R98 2K2

R100 2K2

R54 10K

LK6

X1 6MHz

C36 22p

C101 2200u 16V

C102 0.1u

C103 0.1u

C104 0.1u

C105 0.1u

C106 0.1u

C107 0.1u

C108 0.1u

C110 0.1u

C111 0.1u

C112 0.1u

R1 3K3

R2

R3

R4

C1 C2 C3 C4

C22 0.1u

C54 0.01u

C45 0.1u

C50 0.1u

C51 0.1u

C52 0,1u

C53 0.1u

C43 0.1u

C28 0.1u

C41 0.1u

C21 0.1u

C20 10u

C12 470u

C24 0.1u

C25 0.1u

C35 0.1u

C47 0.1u

C11 10u

C33 0.1u

C29 0.1u

C3 0.01u 1%

R50 100K

R51 1K5

R31 2K2

R62 10K

R3 27K

R20 2K2

R49 100K

R53 10K

R59 47K 1%

R65 1K

R66 240

R67 10K

R68 20K

C7 22u

C5 10u

C6 10u

D5 OA47

D4 OA47

R48 10K

R57 50K

D10 IN 4148

D8 9491

WD1

R45 10K

IC 12/1

IC 12/2 ULN 2803

IC 12/3

IC 12/4

IC 12/5

IC 12/8

IC 14/1 LM 339

IC 14/2

IC 14/3

IC 14/4

IC9/1 ½74LS123

IC9/2 ½74LS123

IC 15/1

IC 15/2

IC 15/3

IC 15/4

IC 17/1

IC 17/2

IC 17/3

IC 17/4

IC 17/5

IC 17/6

IC11/1

IC11/2

IC11/3

IC11/4

TACHO HALL EFFECT

IMBALANCE HALL EFFECT

WH/R/BK

BU

GN

WH

BK

TACHO

IMB

IMBAL

INT0

INT1

T0

RESET

WR

RD

SEL0

SEL2

SEL3

SEL4

SEL5

SEL6

SEL7

EN

CS

WE

OE

CE

Vcc

Vss

+5V

+15V

+24V

0V

40 WAY RIBBON C

PIGGY BACK BOARD

IC 106
74 LS 138

ADDRESS 0-7

ADDRESS 8-15

CONTROL

DATA

SELECT

RESET

IC5
74LS138

ADDRESS

CONTROL

RS R/W IMB IMBAL

IC6
74LS
374

IC 10
H11AA1AC

IC 14/4

IC 14/2

IC 14/1
LM 339

IC 14/3

IC 17/6

IC 17/2

IC 17/1

74 LS05

IC 17/3

IC 17/5

IC 17/4

74 LS08

74 LS00

IC 15/3

IC 15/4

IC 15/2

IC 11/3

IC 11/2

IC 11/1

IC 11/4

IC 9/1
74LS123

IC 9/2
74LS123

IC 12/3

IC 12/5

IC 12/1

IC 12/4

IC 12/8

IC 12/6

IC 12/7

IC 12/2 ULN 2803

ULN 2803

IC 16
7805

IC 19
74LS
374

IC7
74LS
373

IC 21
74 LS08

IC 15/1
74LS00

J4
(14W)

J7
(5W)

J9(10W)

J21

J13

J11

J5

RIBBON SCHEMATIC

DISPLAY

LID LATCH ASSEMBLY

SW1-3

UNUSED ELEMENTS

LIVE

NEUTRAL

FS1

FS2

RL4/1

RL4

RL5/1

RL5/2

LK1

LK4
120V

LK5
120V

LK3
240V
120

LK11

LK12

LK20

+24V

+5V

+15V

0V

-5

-24

IMBAL

INT0

INT1

IMB

T2

TACHO

DRIVE

WD1

TEST POINTS

TEST POINTS	9	8	7	6	1	10	4	3	2	5
	+24V	+15V	+5V	0V	IMBAL	-5V	INT0	INT1	IMB	T2

VOLTAGE	PART N°

Issue	change no.	date	sign
2	90-072	APR90	

IF IN DOUBT ASK! - all dimensions in millimetres
DO NOT SCALE - remove all burrs & sharp edges.
tolerances unless otherwise stated.
2 dec. places ± mm | squareness mm/mm
1 dec. place ± mm | flatness mm

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Finish/treatment

3rd angle

FISONS Scientific Equipment

Title M2000 CIRCUIT DIAGRAM

KEY MEMBRANE

40 WAY RIBBON CABLE

PIGGY BACK BOARD

DATA

CONTROL

SELECT

ADDRESS

RESET

RS R/W IMB IMBAL

IC 106
74 LS 138

ADDRESS 0-7

ADDRESS 8-15

IC 6
74LS 374

IC 5
74LS138

IC 10
H11AA1AC

IC 12/2 ULN 2803

74LS05

74LS08

74LS00

74LS 373

TACHO HALL EFFECT

IMBALANCE HALL EFFECT

DRIVE MOTOR

LIVE

NEUTRAL

EARTH GN/Y

TEST POINTS 9 +24V, 8 +15V, 7 -5V, 6 0V, 1 IMBAL

VOLTAGE	PART Nº